

# Vozdukh (SKV) Air Conditioner

GMT 2018/246 (Monday, Sept. 3, 2018)

At GMT 246/09:05, the Vozdukh experienced an uncommanded deactivation associated with annunciation of Advisory Event Code 650 SM Vozdukh System Failure-RS. The crew reactivated Vozdukh successfully in Mode 4 a short time later. Per MSG, the issue was caused by valve БBK2.

# Overview

**Page 1** – Previous cover page.

**Page 2** – This overview page.

**Page 3** – A 2-hour spectrogram that track SKV(s) signature near 24 Hz from SAMS sensor on Cold Atom Lab.

**Page 4** – RMS acceleration vs. time for SAMS sensor on Cold Atom Lab – no distinctive or sudden drop in RMS acceleration within a narrow band around the SKV frequency.

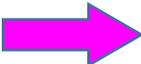
**Page 5** – RMS acceleration vs. time for another SAMS sensor in US Lab – again, no distinctive or sudden changes despite reports of uncommanded deactivation.

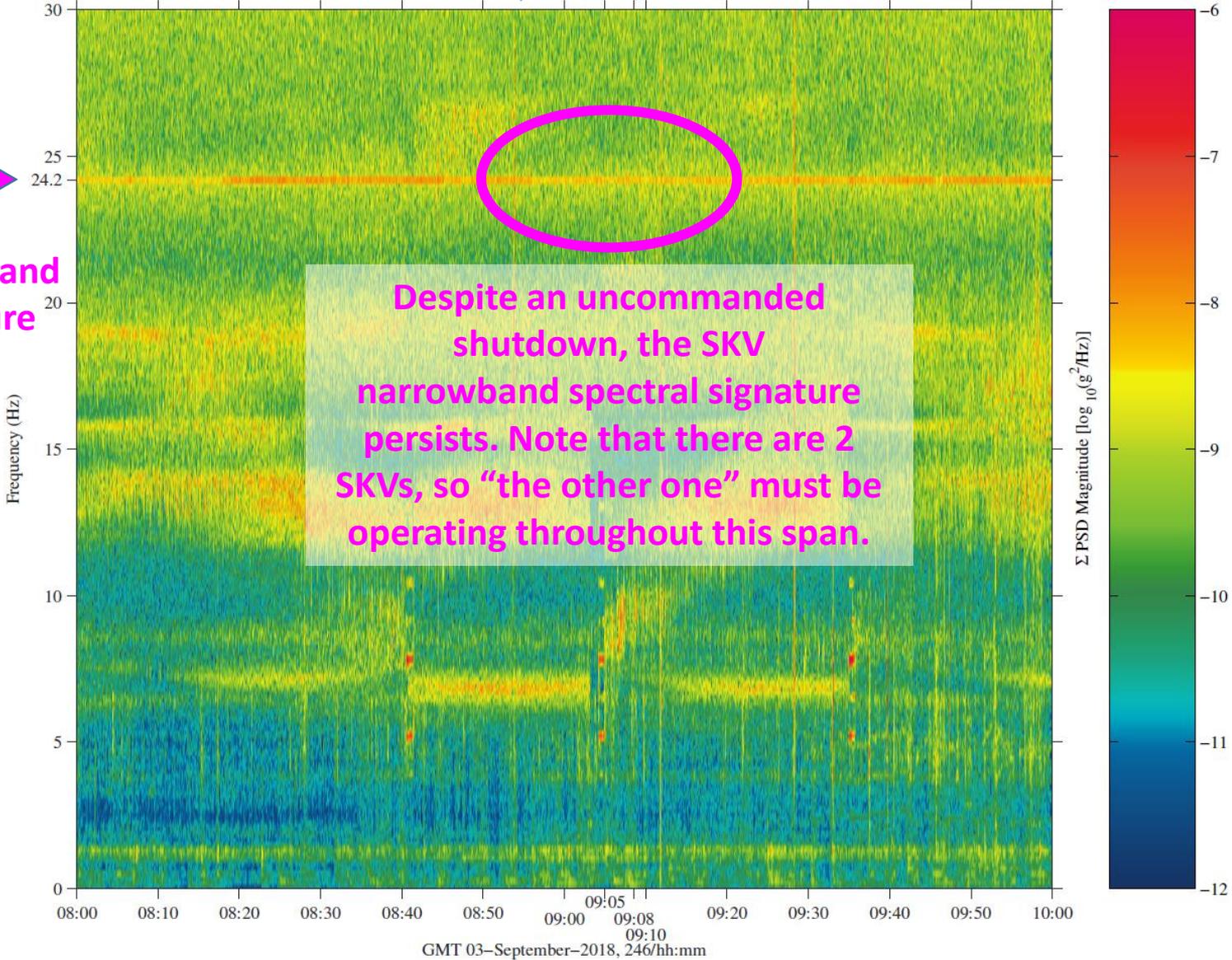
sams2, 121f04 at LAB1P2, ER7, Cold Atom Lab Front Panel:[156.60 -46.08 207.32]  
500.0000 sa/sec (200.00 Hz)  
 $\Delta f = 0.122$  Hz, Nfft = 4096  
Temp. Res. = 4.096 sec, No = 2048

SAMS2, 121f04, LAB1P2, ER7, Cold Atom Lab Front Panel, 200.0 Hz (500.0 s/sec)

Start GMT 03-September-2018, 246/08:00:00

Sum  
Hanning, k = 1756  
Span = 119.81 minutes

  
**SKV**  
narrowband  
signature

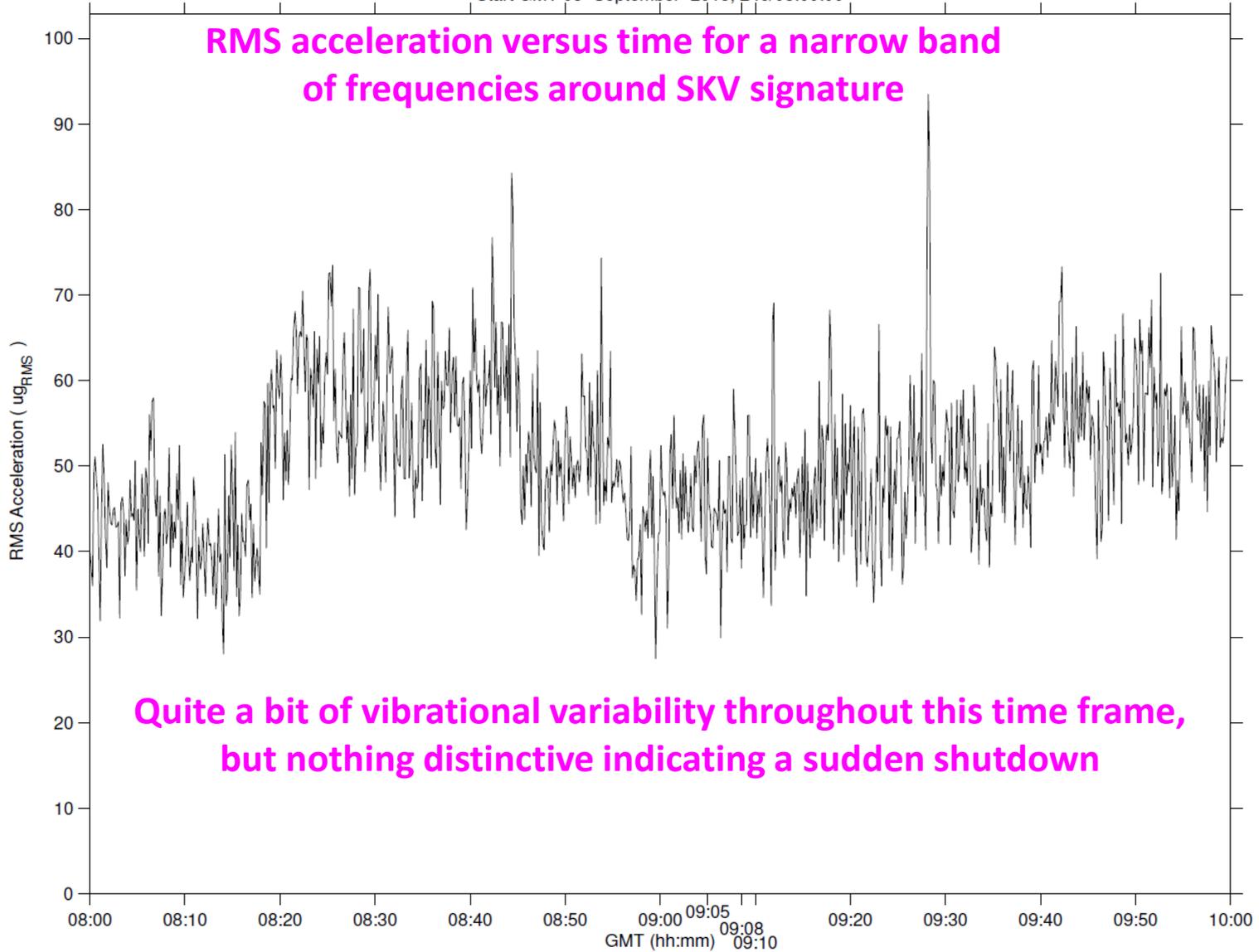


sams2, 121f04 at LAB1P2, ER7, Cold Atom Lab Front Panel:[156.60 -46.08 207.32]  
500.0000 sa/sec (200.00 Hz)  
Δf: 0.061 Hz Range: 23.5 - 24.5 Hz  
Temp. Resolution: 8.192 sec

SAMS2, 121f04, LAB1P2, ER7, Cold Atom Lab Front Panel, 200.0 Hz (500.0 s/sec)

SSAnalysis[ 0.0 0.0 0.0]  
Hanning, k = 1

Start GMT 03-September-2018, 246/08:00:00



sams2, 121f03 at LAB1O1, ER2, Lower Z Panel[191.54 -40.54 135.25]  
500.0000 sa/sec (200.00 Hz)  
Δf: 0.061 Hz [Range: 23.5 - 24.5 Hz]  
Temp. Resolution: 8.192 sec

SAMS2, 121f03, LAB1O1, ER2, Lower Z Panel, 200.0 Hz (500.0 s/sec)

SSAnalysis[ 0.0 0.0 0.0]  
Hanning, k = 1

Start GMT 03-September-2018, 246/08:00:00

